A Commentary regarding the Article *Could Bipedalism be Initial?*

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Dmitri Bayanov wrote in the article *Could Bipedalism be Initial? From BIPEDIA Numero 19 (Janvier 2001)* about the situation of initial bipedalism as being *"... destructive, not constructive, quality for science. This theory reveals not the workings of Nature but "definite mental dispositions" of its authors and proponents."* Bayanov uses both historical philosophical references, as well as Darwinian basis for counteractions of the theory of initial bipedalism. More to the point Bayanov utilizes statements by François de Sarre, the chief proponent of modern initial bipedalism theory, from various articles on the subject to emphasize the flaws in the theory.

The point of this commentary is not to debunk either initial bipedalism or initial quadrupedalism, rather to offer an over view of where the two aspects are. I am not a scientist, nor of higher education, in the same vein I see problems with all aspects of current evolutionary theory and its offshoots (such as the Aquatic Ape Theory), as well as creationist theory. Take these for what they are.

Evidence for initial bipedalism is drawn from the works of such authors as Max Westenhöfer, Serge Frechkop, and Klaas de Snoo. Their work in the early part of the twentieth century laid the basic framework for the current initial bipedalism theory, but the theory was pushed forward more in the last few decades. Current theory is that man, *Homo sapiens*, has changed little from an initial form of archaic man called *marine Homonculus*. An outline of the basics of initial bipedalism, in its modern form, was laid out by François de Sarre for example in the article *About Early Water Stages in Humanity: A Comparison Between the AAT and the Initial Bipedalism Theory* from *BIPEDIA Numero 15 (Septembre 1997)* the following is said:

*"The B.I. (for: Bipédie Initiale) hypothesizes that humans developed from a peculiar stock, **not** from the apes!*

The theory suggests that the first mammals were bipeds that issued from a former aquatic stage.

Man's large globular brain, indeed, is not an indication of simian ancestry, but it shows us one primitive feature that could have been only obtained in water.

Max WESTENHÖFER, a German anatomist, declared in 1926 than man is developed from a remote animal that itself developed from an amphibian form of life. As the Belgian zoologist Serge FRECHKOP also emphasized: monkeys and other quadrupeds originated from bipedal forms!

This leads us to regard "modern" humans as the least removed, morphologically and anatomically, from the aquatic and big-headed common ancestor to all mammals!"

Essentially what is outlined is that the human form as we know it today was established long ago and mammals have developed from this bipedal ancestor. Subsequently related ancestral hominids are *dehumanized* and not steps in our final stage directly. The formation of the brain according to this theory is such that it could only have developed in an aquatic

environment from an earlier form through slow progression. This phylogenetical history was again outlined by François de Sarre as taken from the article *Reconstructing the Archetype: Initial Bipedalism as a Realist Model for Vertebrate Evolution* in *BIPEDIA Numero 18 (Janvier 2000)* as the following, note references to the drawing that went with this article have been removed to minimize confusion:

"The floating organ developed on the apical top of the body of our marine worm, as a "bubble" like in some medusae, intendedly filled with gas to facilitate an "up and down" purpose.

The globular sustenance organ became as functional as, for instance, the natatory bladder of a fish.

Here is the consolidation of the bladder-walls through the insert of a mesodermal membrane between the inner ectodermal bag and the outer skin (the medofermal cells originated in the protochorda): it was this that shaped the round configuration of man's skull and of the early vertebrates.

The marine homonculus with his four legs and a little tail that functioned as a rudder, then started to evolve with his big brain (the neural cells originated in the spinal chord) and upright posture into the first ever terrestrial air-breathing vertebrate."

These phylogenic characteristics mentioned are used by Bayanov, in his aforementioned article in *BIPEDIA Numero 19*, as well to dispute initial bipedalism. Such as the statement:

"Now, can we swallow that? To my mind, the natural appearance of a real head on a floating medusa-like body is as likely as a real head growing on a tree."

Truth be told, Bayanov is correct. The idea of a formation of a real head on a medusa body is unlikely. However, looking at the formation structure outlined by François de Sarre the medusa like body is a comparison only, and the formation of a brain area was the starting point. The brain formation (as we know it today) itself did not, according to the theory, start until a point of vertebrate formation. Each previous stage in the evolutionary process just brought the area of what was to become the brain to a larger extent as well as development of a vertebrate system from a proto-vertebrate stage. So the head formed as we see it not early on, but towards the end of the formation period.

While that is all well and good, the debate as to why a creature, be it *Marine Homonculus* or something else, would leave the aquatic setting is an enigmatic one. Was it for food and sustenance or reproductive necessity, or something else altogether? That question has remained aloof and the intermingling of psychology and extrapolation as to thought patterns does little to aid in this enigma and this problem was indeed hinted at by Dmitri Bayanov in his *BIPEDIA* article from 2001. François de Sarre states in the article *What Did the First Vertebrate Look Like that Entered Land? The Standpoint of Initial Bipedalism Theory* from *BIPEDIA Numero 3 (Septembre 1989)*:

"The water-dwelling pre-hominid then stated to evolve into the first land-living vertebrate. This is what I refer to as Homonculus at the phyophore stage or archaic man. As we have already emphasized, this creature had an inborn tendency to explore, and possessed an effective nervous system (the big brain developed from the marine floating organ)."

The implications of addressing a psychological mannerism to a biological action are not unique here. But, the troublesome part is that it is virtually impossible to prove (and granted disprove) a motivation from the past. It is akin to placing human emotions to a non-human creature, the end result is ambiguous. Therein lies the largest flaw, as I see it, with initial bipedalism the placement of emotion and thought as causation of change. But beyond that the usage as well of initial bipedalism to use embryology as a comparative formation analysis is troublesome. Charles Darwin, and others, have likewise used embryology to show evolutionary traits however the continued usage of the comparisons done by Ernst Haeckel that Darwin used in *On the Origin of Species* misrepresent the actual formation. Darwin used these embryological drawings, now thought to be artistic representations containing inaccuracies, to base common ancestry on. Yet, these same images (redrawn) are used again in initial bipedalism (reference to François de Sarre's article *Were aquatic pre-humans the first vertebrates to enter the land?"* in *The CFZ Yearbook 1997*). However, it is not the fault of initial bipedalism theory to utilize these quirks, as many evolutionary theories use these exact same methods of psychology and embryology. Embryology, by itself, does show some relationships, but as connected to the Haeckel images it does not aid in the study of evolutionary rather it hinders it by misdirection.

In the same sense though evolutionary theory has taken many twists and turns sense its beginnings. We have a wide ranging group of evolutionary ideas, and within them side theories as to where humanity fits into hominid evolution. The history of Evolution though goes back some time with many key players including Erasmus Darwin, Charles Darwin, Sir Charles Lyell, Louis Agassiz, Richard Owen, Alfred Wallace, Karl Ernst von Baer and Edward Blyth to name but a few. Today Charles Darwin is pronounced the grandfather of evolution based in part on his groundbreaking work On *the Origin of Species* published in 1859 (though Darwin and Alfred Wallace's papers that appeared in the same publication in 1858 in the *Linnean Society Journal* received very little attention). Yet, even Darwin did not write of human evolution until 1871 in *The Descent of Man*. In that treatise Darwin asserts a comment in its introduction that all should take to heart:

"It has often and confidently been asserted, that man's origins can never be known: but ignorance more frequently begets confidence that does knowledge: it is those who know little, and not those who know much, who so positively assert that this or that problem will never be solved by science."

One can argue to their blue in the face (or gills) that humanity has arisen in this fashion or that fashion. The true answer still seems locked in mystery. Various theories have various "Phantoms" supporting them. Initial bipedalism has the "phantom" of *Marine Homonoidea*, the Aquatic Ape Theory has the "phantom" of a historic aquatic primate of sufficient age to support the theory, and traditional evolutionary theory lacks many transitional evidence from one form to another as well as continual problems projecting the human timeline. Creationists have the "phantom" of religion to deal with. Panspermia supporters have the enigma of alien life forms as a "phantom". And even current Neo-Darwinism that uses genetics and molecular studies has the "phantom" of molecular degradation and rules that sometimes change (such as mitochondrial DNA sometimes seeping in from a paternal side and not strictly maternal side). Suffice it to say, all theories and endeavors have problems to them in one way or another.

Current changes in evolutionary thought happen often, and new orientations in the direction of lineages occur. An example of this is the current description of a new genus of early hominid from Kenya dubbed *Kenanthropus platyops* by Meave Leakey, Fred Spoor, Frank

Brown, et al. *(New hominin genus from eastern Africa shows diverse middle Pliocene lineages, Nature Vol. 410, March 22, 2001).* Or the paper by Mark Collard and Bernard Wood entitled *How reliable are human phylogenetic hypotheses? (Proceedings of the National Academy of Science, Vol. 97, No. 9, April 25, 2000),* in which the following is said:

"The results of the parsimony and bootstrap tests indicate that cladistic analyses based on standard craniodental characteristics cannot be relied on to reconstruct the phylogenetic relationships of the hominoids, papionins, and, by extension, the fossil hominins."

Even the idea of multiple varieties of hominids existing at the same time was once a fact of great debate. But, current thought has it that based on established fossil record finds multiple types of hominids did co-exist. This intermingling of types adds intrigue then into where the first humans, *Homo sapiens*, came from. Did humans as we know them now arise from a central line, or did the come about independently from various geographically isolated pockets in the world? Multi-regional, Savannah, out-of-Africa, Cataclysm, Catastrophe, etc…

What has been attempted here is not to show a degradation to any singular theory, but to show that various theories have problems. Relying on information at times that is questionable in origins. Examples of problematic racially biased origin theories are the usage of George Montandon's hologenism idea, Isaac de la Peyrére's polygenism idea (which hologenism borrowed from), or Johann Blumenbach's monogenism idea. Much the same as how Plato in *Timaeus* showed women as being of a second generation made of unrighteous men and cowards. These ideas, or theories, underlay the origins of racial discrimination and inequality among humans. But in their time and place served a purpose that sadly led to genocide in certain extreme cases.

The ideals of human evolution lie not with the correctness of a theory, but in the acceptance that an explanation as to the emergence of man is not clear cut. Man arose from someplace and at some historic time, that is the only clear cut fact we have, how else would we be here today. Microevolution, Macroevolution, phylogeny and ontogeny, cladistics and classifications, all these are keywords (among hundreds) to how we classify and investigate nature itself.

The theory of initial bipedalism may be flawed to some, but it is no more superfluous than another theory. Problematic actions of psychology applied to the concept make it laughable at times, but we apply these same psychological and sociological actions when we theorize how say *Neandertal* behaved. And that behavior has been shown to change as more evidence has been uncovered, no longer a stereotypical hairy apish oaf, but a social humanoid not far removed from humanity in many aspects.

We can remove the aspects of Cryptozoology and Hominology from this venue. Although they have been put in at times in the discussion of *dehumanization* they are best left out of the discussion at hand. From the viewpoint of an interest in Cryptozoology and related sub-categories (such as Hominology and Dractontology), the mingling of evolution, creation and associated theories is cumbersome. But, that is the nature of science and the nature of trying to understand a mystery. Usage though of Cryptids to aid in proof of a theory of evolution (or creation) is problematic in itself, as the Cryptid is an unknown and cannot therefore by definition be unequivocally lumped as proof positive.

We do not know the answers to all things. Until then subjective inquiries and theories will proliferate as they have for over 100 years. That, if nothing else, shows evidence of a free will and eagerness to learn through debate and study and the emergence of new paradigms.

"Evolution in the social sphere must take account of individuals not merely as the potential ancestors of the future of society, but as having significance here and now in their own right. It is particular individuals who make things happen, who for better or for worse change the course of events. An outstanding genius is significant without regard to his parentage or possible progeny. But the moron demands also that he be considered on his merits and not merely on his classifications."

From Benjamin C. Gruenberg's *The Story of Evolution*
(Garden City Publishing, Garden City, New York, 1929)

Sources:

Ardrey, Robert
The Hunting Hypothesis, Atheneum, New York, 1976
African Genesis, Delta Book, New York, 1963

Agnew, Neville and Demas, Martha, Preserving the Laetoli Footprints, *Scientific American, Vol. 279, No. 3, September 1998*

Bayanov, Dmitri, Could Bipedalism be Initial?, *BIPEDIA Numero 19*, Janvier 2001

Behem Michael J., *Darwin's Black Box*, Touchstone Book, New York, 1996

Brace, C. Loring and Monagu, F. Ashley, *Man's Evolution: An Introduction to Physical Anthropology, The Macmillan Company, New York, 1967 (5th Edition)*

Cavalli-Sforza, Luigi Luca and Francesco, *The Great Human Diasporas*, Perseus Books, Reading, 1995

Collard, Mark and Wood, Bernard, How reliable are human phylogenetic hypotheses?, *PNAS, Vol. 97, No. 9, April 25, 2000*

Coyne, Jerry and Price, Trevor D., Little Evidence for Sympatric Speciation in Island Birds, *Evolution Vol. 54, No. 6*

Darwin, Charles
The Descent of Man, Prometheus Books, Amherst, New Jersey, 1998 (reprint)
The Origin of Species, The Modern Library, New York, 1998 (reprint)

Diamond, Jared, A Tale of Two Reputations, *Natural History Vol. 110, No. 1, February 2001*

Eiseley, Loren, *Darwin and the Mysterious Mr. X*, Harvest/HBJ Book, New York, 1979

Eldredge, Niles, *The Pattern of Evolution*, WH Freeman and Company, New York, 2000

Godfrey, Laurie (Editor), *Scientists Confront Creationism*, WW Norton & Company, New York, 1983

Gould, Stephen Jay, *Ontogeny and Phylogeny*, Belknap Press of Harvard University, Cambridge, 1977

Gruenberg, Benjamin C., *The Story of Evolution*, Garden City Publishing, Garden City, New York, 1929

Hall, Brian K., Balfour, Garstang and de Beer: The First Century of Evolutionary Embryology, *American Zoologist Vol. 40, No. 5*

Hooton, Ernest A., *Up From the Apes*, The Macmillan Company, New York, 1931

Lasker, Gabriel Ward, *The Evolution of Man*, Holt, Rinehart and Winston, New York, 1961

Leakey, Meave, Spoor, Fred, Brown, Frank, Gathogo, Patrick, Kiarie, Christopher, Leakey, Louise, and McDougall, New hominin genus from eastern Africa shows diverse middle Pliocene lineages, *Nature Vol. 410, March 22, 2001*

Leakey, Richard and Lewin, Roger, *Origins Reconsidered*, Anchor Books, New York, 1992

Lieberman, Daniel, Another Face in Our Family Tree, *Nature Vol. 410, March 22, 2001*

Magin, Ulrich, Footprints in Stone- Evidence for Initial Bipedalism?, *BIPEDIA Numero 16*, Mars 1998

Mayr, Ernst, *Evolution and the Diversity of Life*, Belknap Press of Harvard University, Cambridge, 1997

McElvaine, Robert S., *Eve's Seed*, McGraw Hill, New York, 2001

McHenry, Henry M., Temp and mode in human evolution, *Proceedings of the National Academy of Science, Vol. 91, July 1994*

Morgan, Elaine, *The Scars of Evolution*, Souvenir Press, London, 1990

Morris, Henry M., *Scientific Creationism*, Master Books, Green Forest, 1996

Pennock, Robert T., *Tower of Babel*, MIT Press, Cambridge, 2000
Radinsky, Leonard B., *The Evolution of Vertebrate Design*, University of Chicago Press, Chicago, 1987
Rook, Lorenzo, Bondioli, Luca, Kohler, Meike, Moya-Sola, Salvador, and Macchiarelli, Roberto, Orepithecus was a bipedal ape after all: Evidence from the iliac cancellous architecture, *Proceedings of the National Academy of Science (PNAS), Vol. 96, July 1999*
Sarre de, François
Reconstructing the Archetype. Initial Bipedalism as a Realist Model for Vertebrate Evolution, *BIPEDIA Numer 18*, Janvier 2000
About Early Water Stages in Humanity: A Comparison Between the AAT and the Initial Bipedalism Theory, *BIPEDIA Numero 15*, Septembre 1997
What Did the First Vertebrate Look Like That Entered Land? The Standpoint of Initial Bipedalism Theory, *BIPEDIA Numero 3*, Septembre 1989
On the Origins of Whale and Dolphins from an Archaic Marine Form, *BIPEDIA Numero 11*, Juin 1994
Initial Bipedalism: A Theory of Human Evolution, *Animals & Men Issue 11*
Were aquatic pre-humans the first vertebrates to enter land?, *The CFZ Yearbook 1997*, , The Centre for Fortean Zoology, Exeter, 1997 (Jonathan Downes Editor)
Schopf, J. William, Solution to Darwin's dilemma: Discovery of the missing Precambrian record of life, *Proceedings of the National Academy of Science, Vol. 97, No. 13, June 20, 2000*
Shreeve, James
Sunset on the Savanna, *Discover, Vol. 17, No. 17, July 1996*
The Dating Game, *Discover Vol. 13, No. 9, September 1992*
Stanley, Steven M., *Children of the Ice Age*, WH Freeman and Company, New York, 1998
Tattersall, Ian, Once We Were Not Alone, *Scientific American, Vol. 282, No. 1, January 2000*
Verrill, Hyatt, *Strange Prehistoric Animals and Their Stories*, LC Page & Company, Clinton, 1948
Weidenreich, Franz, *Apes, Giants and Man*, The University of Chicago Press, Chicago, 1946
Wells, Jonathan, *Icons of Evolution*, Regnery Publishing, Washington, D.C., 2000
Wolpoff, Milford and Caspari, Rachel, *Race and Human Evolution*, Westview Press, Boulder, 1998
Wright, Karen, When Life was Odd, *Discover Vol. 18, No. 3, March 1997*

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